

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for detecting a property of marked objects contained in a specimen, the apparatus comprising

a frame,

a member positioned on the frame and having a surface that is adapted to receive and hold the specimen,

at least a first light source for emitting at least a first light beam towards the specimen held by the member,

at least a detector for detecting a light emitted from the marked objects upon interaction with the first light beam, the first light source and the detector being arranged so that a part of a light beam path from the first light source to the specimen is ~~extensive~~ co-axial with a part of the light emitted from the marked objects, ~~and~~

scanning means for scanning the specimen in relation to the detector along a non-linear curve, wherein the scanning means comprises means for rotating the member and means for displacing the member along a radius of the rotation of the member, so as to detect the property of the marked objects in the entire specimen, the means for rotating and the means for displacing being simultaneously directly connected to the member, the member being simultaneously rotatable and displaceable along a radius of the rotation of the member,

scanning control means for controlling the scanning means for scanning the specimen along the non-linear curve,

storage means for storing detector signals relating to the marked objects provided by the detector and corresponding position signals provided by the scanning control means,

means for retrieving the position signals stored in the storage means, and
a microscope for optical inspection of the marked objects,
wherein the scanning control means are adapted to place the microscope at the
position of the marked objects.

2-6. (Cancelled)

7. (Previously Presented) An apparatus according to claim 1, wherein the member is positioned for rotation about an axis on the frame and wherein the means for rotating the member rotates the member about the axis.

8. (Previously Presented) An apparatus according to claim 1, further comprising scanning control means for controlling the scanning means for scanning the specimen along a predetermined curve.

9. (Previously Presented) An apparatus according to claim 8, wherein the scanning control means are adapted to control the scanning means in such a way that the predetermined curve is a substantially circular curve.

10. (Cancelled)

11. (Currently Amended) An apparatus according to ~~claim 10~~claim 1, further comprising means for sampling and digitising the detector signals and the position signals.

12. (Previously Presented) An apparatus according to claim 1, further comprising signal processing means operatively connected to the detector to detect a presence of an object based on the detector signals.

13. (Cancelled)

14. (Currently Amended) An apparatus according to ~~claim 13~~claim 1, wherein the stored positions of the detected objects are retrieved, and used by said scanning means to position a means for optical inspection of detected objects.

15. (Previously Presented) An apparatus according to claim 1, wherein the specimen has an area larger than 500 mm².

16. (Previously Presented) An apparatus according to claim 1, wherein the specimen has an area larger than 8000 mm².

17-22. (Cancelled)

23. (Previously Presented) An apparatus according to claim 1, wherein a mask is inserted in an optical path between the specimen and the detector, and the mask comprises at least one transparent aperture.

24. (Previously Presented) An apparatus according to claim 23, wherein the aperture shape is a substantially rectangular shape.

25. (Previously Presented) An apparatus according to claim 23, wherein at least one dimension of the aperture, as projected on the specimen, is between 0.75 and 2 times the dimensions of objects to be detected.

26. (Cancelled)

27. (Previously Presented) An apparatus according to claim 1, wherein the first light source is a coherent light source.

28. (Previously Presented) An apparatus according to claim 1, wherein the first light beam is adapted to provide a light spot having a diameter between 20-150 μ m on the specimen.

29. (Currently Amended) A method of detecting a property of an object contained in a specimen and comprising the steps of:

positioning the specimen on a member having a surface that is adapted to receive and hold the specimen,

emitting at least a first light beam from a first light source towards the specimen held by the member,

scanning the specimen in relation to a detector along a non-linear curve by rotating the member holding the specimen and displacing the member along a radius of the rotation of the member, the member being simultaneously rotatable and displaceable along a radius of the rotation of the member,

arranging the light source and the detector, so that a part of a light beam path from the ~~at least~~ first light source to the specimen is ~~co-extensive~~co-axial with a part of a light emitted from the ~~marked object~~object, and

detecting the light emitted from the ~~marked object~~object, thereby detecting a property of the ~~marked object~~object during scanning of the specimen,

storing detector signals relating to the object provided by the detector and corresponding position signals provided by the scanning control means,

retrieving the position signals stored in the storage means,

placing a microscope at the position of the object, and

optically inspecting the object by the microscope.

30-35. (Cancelled)

36. (Previously Presented) A method according to claim 29, further comprising the step of storing signals relating to the detected property and corresponding data relating to the current position of the member.

37. (Previously Presented) A method according to claim 36, further comprising the step of sampling and digitising the signals and the data.

38. (Cancelled)

39. (Cancelled)

40. (Previously Presented) An apparatus according to claim 1, wherein the marked objects are marked with a fluorescent stain.

41-43. (Cancelled)

44. (Previously Presented) An apparatus according to claim 1, wherein the detector comprises a CCD device.

45. (Previously Presented) An apparatus according to claim 40, wherein the fluorescent stain is Fluorescein.